

IN THE CLAIMS

Please cancel claims 5, 19, 33 and 47 without prejudice or disclaimer.

Please amend claims 6, 8, 9, 20, 22, 23, 34, 36, 37, 48, 50 and 51 as indicated below.

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (cancelled)

Claim 2 (previously presented) The method as recited in claim 4 further comprising the step of:

inserting one or more bits in a frame header of said frame to select appropriate ports in a switch fabric to transmit said frame.

Claim 3 (original) The method as recited in claim 2 further comprising the step of:

setting a bit in said frame header of said frame to indicate an explicit or an implicit acknowledgment.

Claim 4 (previously presented) A method for reliably transmitting a frame comprising the steps of:

inserting two or more sequence numbers in said frame, wherein each of said two or more sequence numbers is associated with a destination node;

transmitting said frame to two or more destination nodes; and
saving a copy of said transmitted frame.

Claim 5 (cancelled)

Claim 6 (currently amended) The method as recited in claim 5 further comprising the steps of: A method for reliably transmitting a frame comprising the steps of:

inserting two or more sequence numbers in said frame, wherein each of said two or more sequence numbers is associated with a destination node;

transmitting said frame to two or more destination nodes;

receiving an acknowledgment from a particular destination node of said two or more destination nodes;

identifying said particular destination node;

identifying a frame associated with said acknowledgment;

reading a data structure associated with said particular destination node; and

determining if a sequence number associated with said acknowledgment is greater than an expected sequence number.

Claim 7 (original) The method as recited in claim 6, wherein if said sequence number associated with said acknowledgment is greater than said expected sequence number then the method further comprises the step of:

detecting a lost acknowledgment.

Claim 8 (currently amended) ~~The method as recited in claim 5 further comprising the steps of:~~ A method for reliably transmitting a frame comprising the steps of:

inserting two or more sequence numbers in said frame, wherein each of said two or more sequence numbers is associated with a destination node;

transmitting said frame to two or more destination nodes;

receiving an acknowledgment from a particular destination node of said two or more destination nodes;

identifying said particular destination node;

identifying a frame associated with said acknowledgment;

reading a data structure associated with said particular destination node;

indicating in an entry in said data structure associated with said particular destination node that a frame associated with said acknowledgment from said particular destination node has been received; and

identifying a previous entry associated with a frame transmitted with an implicit acknowledgment in said data structure associated with said particular destination node as having been received.

Claim 9 (currently amended) ~~The method as recited in claim 5 further comprising the steps of:~~ A method for reliably transmitting a frame comprising the steps of:

inserting two or more sequence numbers in said frame, wherein each of said two or more sequence numbers is associated with a destination node;

transmitting said frame to two or more destination nodes;

receiving an acknowledgment from a particular destination node of said two or more destination nodes;

identifying said particular destination node;

identifying a frame associated with said acknowledgment;

reading a data structure associated with said frame associated with said acknowledgment; and

indicating in an entry in said data structure associated with said particular destination node that a frame associated with said acknowledgment from said particular destination node has been received.

Claim 10 (original) The method as recited in claim 9 further comprising the step of:

determining if there are outstanding responses for said frame associated with said acknowledgment.

Claim 11 (original) The method as recited in claim 10, wherein if there are outstanding responses for said frame associated with said acknowledgment then the method further comprises the step of:

waiting to receive an additional acknowledgment.

Claim 12 (original) The method as recited in claim 10, wherein if there are no outstanding responses for said frame then the method further comprises the step of:

releasing memory associated with said frame associated with said acknowledgment.

Claim 13 (previously presented) The method as recited in claim 4 further comprising the step of:

receiving a request to retransmit said frame from a particular destination node of said two or more destination nodes; and

retransmitting said frame to said particular destination node of said two or more destination nodes.

Claim 14 (previously presented) The method as recited in claim 4, wherein said frame is a multicast frame.

Claim 15 (cancelled)

Claim 16 (previously presented) The computer program product as recited in claim 18 further comprises:

programming operable for inserting one or more bits in a frame header of said frame to select appropriate ports in a switch fabric to transmit said frame.

Claim 17 (original) The computer program product as recited in claim 16 further comprises:

programming operable for setting a bit in said frame header of said frame to indicate an explicit or an implicit acknowledgment.

Claim 18 (previously presented) A computer program product embodied in a machine readable medium for reliably transmitting a frame, comprising:

programming operable for inserting two or more sequence numbers in said frame, wherein each of said two or more sequence numbers is associated with a destination node;

programming operable for transmitting said frame to two or more destination nodes; and

programming operable for saving a copy of said transmitted frame.

Claim 19 (cancelled)

Claim 20 (currently amended) ~~The computer program product as recited in claim 19 further comprises: A computer program product embodied in a machine readable medium for reliably transmitting a frame, comprising:~~

~~programming operable for inserting two or more sequence numbers in said frame, wherein each of said two or more sequence numbers is associated with a destination node;~~

~~programming operable for transmitting said frame to two or more destination nodes;~~

~~programming operable for receiving an acknowledgment from a particular destination node of said two or more destination nodes;~~

programming operable for identifying said particular destination node;

programming operable for identifying a frame associated with said acknowledgment;

programming operable for reading a data structure associated with said particular destination node; and

programming operable for determining if a sequence number associated with said acknowledgment is greater than an expected sequence number.

Claim 21 (original) The computer program product as recited in claim 20, wherein if said sequence number associated with said acknowledgment is greater than said expected sequence number then the computer program product further comprises:
programming operable for detecting a lost acknowledgment.

Claim 22 (currently amended) ~~The computer program product as recited in claim 19 further comprises: A computer program product embodied in a machine readable medium for reliably transmitting a frame, comprising:~~

programming operable for inserting two or more sequence numbers in said frame, wherein each of said two or more sequence numbers is associated with a destination node;

programming operable for transmitting said frame to two or more destination nodes;

programming operable for receiving an acknowledgment from a particular destination node of said two or more destination nodes;

programming operable for identifying a frame associated with said acknowledgment;

programming operable for reading a data structure associated with said particular destination node;

programming operable for indicating in an entry in said data structure associated with said particular destination node that a frame associated with said acknowledgment from said particular destination node has been received; and

programming operable for identifying a previous entry associated with a frame transmitted with an implicit acknowledgment in said data structure associated with said particular destination node as having been received.

Claim 23 (currently amended) ~~The computer program product as recited in claim 19 further comprises: A computer program product embodied in a machine readable medium for reliably transmitting a frame, comprising:~~

programming operable for inserting two or more sequence numbers in said frame, wherein each of said two or more sequence numbers is associated with a destination node;

programming operable for transmitting said frame to two or more destination nodes;

programming operable for receiving an acknowledgment from a particular destination node of said two or more destination nodes;

programming operable for identifying said particular destination node;

programming operable for identifying a frame associated with said acknowledgment;

programming operable for reading a data structure associated with said frame associated with said acknowledgment; and

programming operable for indicating in an entry in said data structure associated with said particular destination node that a frame associated with said acknowledgment from said particular destination node has been received.

Claim 24 (original) The computer program product as recited in claim 23 further comprises:

programming operable for determining if there are outstanding responses for said frame associated with said acknowledgment.

Claim 25 (original) The computer program product as recited in claim 24, wherein if there are outstanding responses for said frame associated with said acknowledgment then the computer program product further comprises:

programming operable for waiting to receive an additional acknowledgment.

Claim 26 (original) The computer program product as recited in claim 24, wherein if there are no outstanding responses for said frame then the computer program product further comprises:

programming operable for releasing memory associated with said frame associated with said acknowledgment.

Claim 27 (previously presented) The computer program product as recited in claim 18 further comprises:

programming operable for receiving a request to retransmit said frame from a particular destination node of said two or more destination nodes; and

programming operable for retransmitting said frame to said particular destination node of said two or more destination nodes.

Claim 28 (previously presented) The computer program product as recited in claim 18, wherein said frame is a multicast frame.

Claim 29 (cancelled)

Claim 30 (previously presented) The node as recited in claim 32, wherein the computer program is further operable for performing the following programming step:

inserting one or more bits in a frame header of said frame to select appropriate ports in a switch fabric to transmit said frame.

Claim 31 (original) The node as recited in claim 30, wherein the computer program is further operable for performing the following programming step:

setting a bit in said frame header of said frame to indicate an explicit or an implicit acknowledgment.

Claim 32 (previously presented) A node, comprising:

a processor; and

a memory unit coupled to said processor, wherein said memory unit is operable for storing a computer program operable for reliably transmitting a frame, wherein the computer program is operable for performing the following programming steps:

inserting two or more sequence numbers in said frame, wherein each of said two or more sequence numbers is associated with a destination node;

transmitting said frame to two or more destination nodes; and

saving a copy of said transmitted frame.

Claim 33 (cancelled)

Claim 34 (currently amended) ~~The node as recited in claim 33, wherein the computer program is further operable for performing the following programming steps: A node, comprising:~~

a processor; and

a memory unit coupled to said processor, wherein said memory unit is operable for storing a computer program operable for reliably transmitting a frame, wherein the computer program is operable for performing the following programming steps:

inserting two or more sequence numbers in said frame, wherein each of said two or more sequence numbers is associated with a destination node;

transmitting said frame to two or more destination nodes;

receiving an acknowledgment from a particular destination node of said two or more destination nodes;

identifying said particular destination node;

identifying a frame associated with said acknowledgment;

reading a data structure associated with said particular destination node; and

determining if a sequence number associated with said acknowledgment is greater than an expected sequence number.

Claim 35 (original) The node as recited in claim 34, wherein if said sequence number associated with said acknowledgment is greater than said expected sequence number then the computer program is further operable for performing the following programming step:

detecting a lost acknowledgment.

Claim 36 (currently amended) The node as recited in claim 33, wherein the computer program is further operable for performing the following programming steps: A node, comprising:

a processor; and

a memory unit coupled to said processor, wherein said memory unit is operable for storing a computer program operable for reliably transmitting a frame, wherein the computer program is operable for performing the following programming steps:

inserting two or more sequence numbers in said frame, wherein each of said two or more sequence numbers is associated with a destination node;
transmitting said frame to two or more destination nodes;
receiving an acknowledgment from a particular destination node of said two or more destination nodes;
identifying said particular destination node;
identifying a frame associated with said acknowledgment;
reading a data structure associated with said particular destination node;
indicating in an entry in said data structure associated with said particular destination node that a frame associated with said acknowledgment from said particular destination node has been received; and
identifying a previous entry associated with a frame transmitted with an implicit acknowledgment in said data structure associated with said particular destination node as having been received.

Claim 37 (currently amended) ~~The node as recited in claim 33, wherein the computer program is further operable for performing the following programming steps: A node, comprising:~~

a processor; and
a memory unit coupled to said processor, wherein said memory unit is operable for storing a computer program operable for reliably transmitting a frame, wherein the computer program is operable for performing the following programming steps:

inserting two or more sequence numbers in said frame, wherein each of said two or more sequence numbers is associated with a destination node;
transmitting said frame to two or more destination nodes;
receiving an acknowledgment from a particular destination node of said two or more destination nodes;
identifying said particular destination node;
identifying a frame associated with said acknowledgment;

reading a data structure associated with said frame associated with said acknowledgment; and

indicating in an entry in said data structure associated with said particular destination node that a frame associated with said acknowledgment from said particular destination node has been received.

Claim 38 (original) The node as recited in claim 37, wherein the computer program is further operable for performing the following programming step:

determining if there are outstanding responses for said frame associated with said acknowledgment.

Claim 39 (original) The node as recited in claim 38, wherein if there are outstanding responses for said frame associated with said acknowledgment then the computer program is further operable for performing the following programming step:

waiting to receive an additional acknowledgment.

Claim 40 (original) The node as recited in claim 38, wherein if there are no outstanding responses for said frame then the computer program is further operable for performing the following programming step:

releasing memory associated with said frame associated with said acknowledgment.

Claim 41 (previously presented) The node as recited in claim 32, wherein the computer program is further operable for performing the following programming steps:

receiving a request to retransmit said frame from a particular destination node of said two or more destination nodes; and

retransmitting said frame to said particular destination node of said two or more destination nodes.

Claim 42 (previously presented) The node as recited in claim 32, wherein said frame is a multicast frame.

Claim 43 (cancelled)

Claim 44 (previously presented) The system as recited in claim 46, wherein the computer program is further operable for performing the following programming step:

inserting one or more bits in a frame header of said frame of data to select appropriate ports in said switch fabric to transmit said frame of data.

Claim 45 (original) The system as recited in claim 44, wherein the computer program is further operable for performing the following programming step:

setting a bit in said frame header of said frame of data to indicate an explicit or an implicit acknowledgment.

Claim 46 (previously presented) A system, comprising:

a transmitting node configured to transmit one or more frames of data;

a switch fabric coupled to said transmitting node configured to direct said transmitted one or more frames of data;

a plurality of destination nodes coupled to said switch fabric, wherein each of said plurality of destination nodes is configured to receive one or more of said one or more frames of data; and

wherein said transmitting node comprises:

a processor; and

a memory unit coupled to said processor, wherein said memory unit is operable for storing a computer program operable for reliably transmitting one or more frames of data, wherein the computer program is operable for performing the following programming steps:

inserting two or more sequence numbers in a frame of data, wherein each of said two or more sequence numbers is associated with one of said plurality of destination nodes;

transmitting said frame of data to two or more of said plurality of destination nodes; and

saving a copy of said transmitted frame of data.

Claim 47 (cancelled)

Claim 48 (currently amended) ~~The system as recited in claim 47, wherein the computer program is further operable for performing the following programming steps: A system, comprising:~~

a transmitting node configured to transmit one or more frames of data;

a switch fabric coupled to said transmitting node configured to direct said transmitted one or more frames of data;

a plurality of destination nodes coupled to said switch fabric, wherein each of said plurality of destination nodes is configured to receive one or more of said one or more frames of data; and

wherein said transmitting node comprises:

a processor; and

a memory unit coupled to said processor, wherein said memory unit is operable for storing a computer program operable for reliably transmitting one or more frames of data, wherein the computer program is operable for performing the following programming steps:

inserting two or more sequence numbers in a frame of data, wherein each of said two or more sequence numbers is associated with one of said plurality of destination nodes;

transmitting said frame of data to two or more of said plurality of destination nodes;

receiving an acknowledgment from a particular destination node of said two or more destination nodes;

identifying said particular destination node;
identifying a frame of data associated with said acknowledgment;
reading a data structure associated with said particular destination node; and
determining if a sequence number associated with said acknowledgment is greater than an expected sequence number.

Claim 49 (original) The system as recited in claim 48, wherein if said sequence number associated with said acknowledgment is greater than said expected sequence number then the computer program is further operable for performing the following programming step:

detecting a lost acknowledgment.

Claim 50 (currently amended) ~~The system as recited in claim 47, wherein the computer program is further operable for performing the following programming steps: A system, comprising:~~

a transmitting node configured to transmit one or more frames of data;
a switch fabric coupled to said transmitting node configured to direct said transmitted one or more frames of data;
a plurality of destination nodes coupled to said switch fabric, wherein each of said plurality of destination nodes is configured to receive one or more of said one or more frames of data; and
wherein said transmitting node comprises:
 a processor; and
 a memory unit coupled to said processor, wherein said memory unit is operable for storing a computer program operable for reliably transmitting one or more frames of data, wherein the computer program is operable for performing the following programming steps:

inserting two or more sequence numbers in a frame of data, wherein each of said two or more sequence numbers is associated with one of said plurality of destination nodes;

transmitting said frame of data to two or more of said plurality of destination nodes;

receiving an acknowledgment from a particular destination node of said two or more destination nodes;

identifying said particular destination node;

identifying a frame associated with said acknowledgment;

reading a data structure associated with said particular destination node;

indicating in an entry in said data structure associated with said particular destination node that a frame associated with said acknowledgment from said particular destination node has been received; and

identifying a previous entry associated with a frame transmitted with an implicit acknowledgment in said data structure associated with said particular destination node as having been received.

Claim 51 (currently amended) ~~The system as recited in claim 47, wherein the computer program is further operable for performing the following programming steps: A system comprising:~~

a transmitting node configured to transmit one or more frames of data;

a switch fabric coupled to said transmitting node configured to direct said transmitted one or more frames of data;

a plurality of destination nodes coupled to said switch fabric, wherein each of said plurality of destination nodes is configured to receive one or more of said one or more frames of data; and

wherein said transmitting node comprises:

a processor; and

a memory unit coupled to said processor, wherein said memory unit is operable for storing a computer program operable for reliably transmitting one or

more frames of data, wherein the computer program is operable for performing the following programming steps:

inserting two or more sequence numbers in a frame of data, wherein each of said two or more sequence numbers is associated with one of said plurality of destination nodes;

transmitting said frame of data to two or more of said plurality of destination nodes;

receiving an acknowledgment from a particular destination node of said two or more destination nodes;

identifying said particular destination node;

identifying a frame of data associated with said acknowledgment;

reading a data structure associated with said frame of data associated with said acknowledgment; and

indicating in an entry in said data structure associated with said particular destination node that a frame associated with said acknowledgment from said particular destination node has been received.

Claim 52 (original) The system as recited in claim 51, wherein the computer program is further operable for performing the following programming step:

determining if there are outstanding responses for said frame of data associated with said acknowledgment.

Claim 53 (original) The system as recited in claim 52, wherein if there are outstanding responses for said frame associated with said acknowledgment then the computer program is further operable for performing the following programming step:

waiting to receive an additional acknowledgment.

Claim 54 (original) The system as recited in claim 52, wherein if there are no outstanding responses for said frame then the computer program is further operable for performing the following programming step:

releasing memory associated with said frame of data associated with said acknowledgment.